

REMARKS

In the Office Action dated April 9, 2004, the drawings were objected to, as was the disclosure. Claims 10, 30, 33, 38, 45, 48, 60, 63, 78 and 81 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Claim 10 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,218,783 to Ripple. Claim 10 was also rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,230,722 to Yonkers. Claim 10 was further rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,867,863 to McCormick. Claims 22-23, 26-28 and 31-32 were rejected under 35 U.S.C. § 102(b) as being anticipated by British Patent No. 2,265,096 of Richards et al. (Richards). Claims 22-23, 56, 60, 61 and 65-69 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,020,186 to Lessig, III et al. (Lessig).

Claim 25 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Richards in view of British Patent No. 2,280,388. Claims 24 and 33-34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Richards in view of Yonkers. Claims 29 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Richards in view of McCormick. Claims 35 and 36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Richards in view of Lessig. Claims 24 and 57 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lessig in view of Yonkers. Claims 25 and 58 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lessig in view of Richards. Claims 29, 30, 62 and 63 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lessig in view of McCormick.

Claim 22 was rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 18 and 36 of applicant's

earlier issued U.S. Patent No. 6,260,234. Similarly, claim 37 was rejected as being unpatentable over claim 23 of applicant's '234 patent. Claim 53 was rejected on the same grounds over claim 26 of applicant's '234 patent.

Claims 37, 39-44, 46, 47, 49-55, 71-77, 79, 80 and 82-87 were allowed. Claims 38, 45, 48, 78 and 81 were said to be allowable if rewritten to overcome the Section 112 rejections thereagainst. Claims 59, 64 and 70 were objected to as being dependent on a rejected base claim. It was stated that these claims would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. For the reasons outlined in detail below, it is respectfully submitted that all of the claims pending after the entry of this amendment are in condition for allowance.

In connection with the objection to the drawings, applicant has amended the specification to employ the character 164 only to designate a bore. To this end, page 16, line 11 has been amended to replace "passage" with --bore--.

In connection with the specification, applicant has amended page 18, line 15 to replace "a" with --the--. Also, line 26 of page 18 has been amended to add the numeral --124-- after the term "structure". Therefore, it is respectfully submitted that the objection to the disclosure should now be withdrawn.

Several of the claims were rejected under 35 U.S.C. § 112, second paragraph. Applicant has cancelled certain of the claims without prejudice and amended the other claims to overcome the Section 112 rejection thereagainst. More particularly, applicant has amended claims 38, 45, 48, 60, 63, 78 and 81 to overcome the Section 112 rejection thereagainst. The remaining claims have been cancelled without prejudice.

Claim 10 against which was cited Ripple, Yonkers and McCormick has been cancelled without prejudice.

Applicant has cancelled claims 22-36 without prejudice to their reintroduction in a continuation application. This renders moot the rejections outlined in paragraphs 7-10, 15, 16, 17 and 18 of the Office Action. Moreover, the part of paragraph 11 pertaining to claims 22 and 23 is also moot, as is the part of paragraph 19 dealing with claim 24, the part of paragraph 20 dealing with claim 25 and the part of paragraph 21 dealing with claims 29 and 30.

As to the remainder of the rejections set forth in paragraph 11, these have been rendered moot for the reasons outlined in detail below. Similarly, the rejection of claim 57 in paragraph 19 of the Office Action, of claim 58 in paragraph 20 of the Office Action, and of claims 62 and 63 in paragraph 21 of the Office Action have been rendered moot for the reasons outlined in detail below.

In paragraphs 23, 24 and 25 of the Office Action, it was stated that certain claims of the pending application are rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over certain claims of applicant's earlier issued U.S. Patent No. 6,260,234. As was stated in paragraph 22 of the Office Action, however, a timely filed terminal disclaimer in compliance with 37 C.F.R. 1.321(c) can be used to overcome such a rejection, provided that the conflicting patent is shown to be commonly owned with this application. Such a terminal disclaimer is enclosed herewith. As a result of this terminal disclaimer, it is respectfully submitted that this non-statutory double patenting rejection has now been overcome.

The allowance of claims 37, 39 - 44, 46, 47, 49-55, 71-77, 79, 80 and 82-87 is greatly acknowledged.

In reply to paragraph 27 of the Office Action, applicant has amended claims 38, 45, 48, 78 and 81 to overcome the Section 112, second paragraph rejections raised thereagainst. Therefore, it is respectfully submitted that these claims are also now in condition for allowance.

In paragraph 28 of the Office Action, it was stated that claims 59, 64 and 70 were merely being objected to as being dependent upon a rejected base claim. It was stated that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In reply, applicant has amended claim 56 to add the subject matter of claim 59 thereto. Accordingly, claim 56 should now be considered in condition for allowance, as the rejection of this claim in paragraph 11 of the Office Action is moot.

Dependent claims 57, 58 and 60 - 62 depend from claim 56 as amended. It is respectfully submitted that these claims are also in condition for allowance. As to claims 57, 58, 62 and 63, the rejections set forth in paragraphs 19-21 of the Office Action are now moot.

In addition, applicant has rewritten claim 64 in independent form. Therefore, this claim is also believed to be in condition for allowance. Similarly, claims 65, 66 and 67 which are now all dependent from claim 64 should also be considered in condition for allowance.

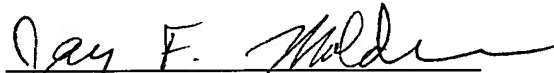
Moreover, applicant has rewritten claim 70 in independent form. It is respectfully submitted that this claim is also in condition for allowance. Similarly, claim 68, which is now dependent from claim 70, should also be considered in condition for allowance.

In view of the foregoing, it is respectfully submitted that independent claim 37 and its dependent claims 38-55, independent claim 56 and its dependent claims 57,

58, and 60 - 63, independent claim 64 and its dependent claims 65-67, independent claim 70 and its dependent claim 68, and independent claim 71 and its dependent claims 72-87 are in condition for allowance. Such allowance is earnestly solicited.

Respectfully submitted,

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